A.5.7 Launch Location

Since the Zenit-3SL is launched from a mobile, sea-based launch platform, there is some flexibility in the location of the launch. However, considerations such as stage impact points, weather, and LP transit times restrict the vehicle from being launched at any location. Figure A.5.7-1 identifies the launch region in the Pacific Ocean. All data in this section assume an equatorial launch location with coordinates 0^{o} N, 154^{o} W. This is approximately 10 days LP sailing time from the Home Port, and less than one day ACS sailing time from Kiritimati (Christmas) Island.

A.5.8 Ascent Trajectory

The Zenit-3SL ascent trajectory will be tailored to optimize the mission's critical performance parameters while satisfying spacecraft and launch vehicle constraints. This section gives an overview of the ascent trajectory and flight profile.

Table A.5.1-1 (Section A.5.1) and Figures A.5.8-1 through A.5.8-3 illustrate a typical Zenit-3SL ascent trajectory for a GTO mission. Table A.5.1-1 is a listing of the times at which the main mission events occur, and Figure A.5.8-1 shows the ascent groundtrack and illustrates the tracking coverage. Figures A.5.8-2 and A.5.8-3 show the flight profile to GTO, with key events and parameters labeled.

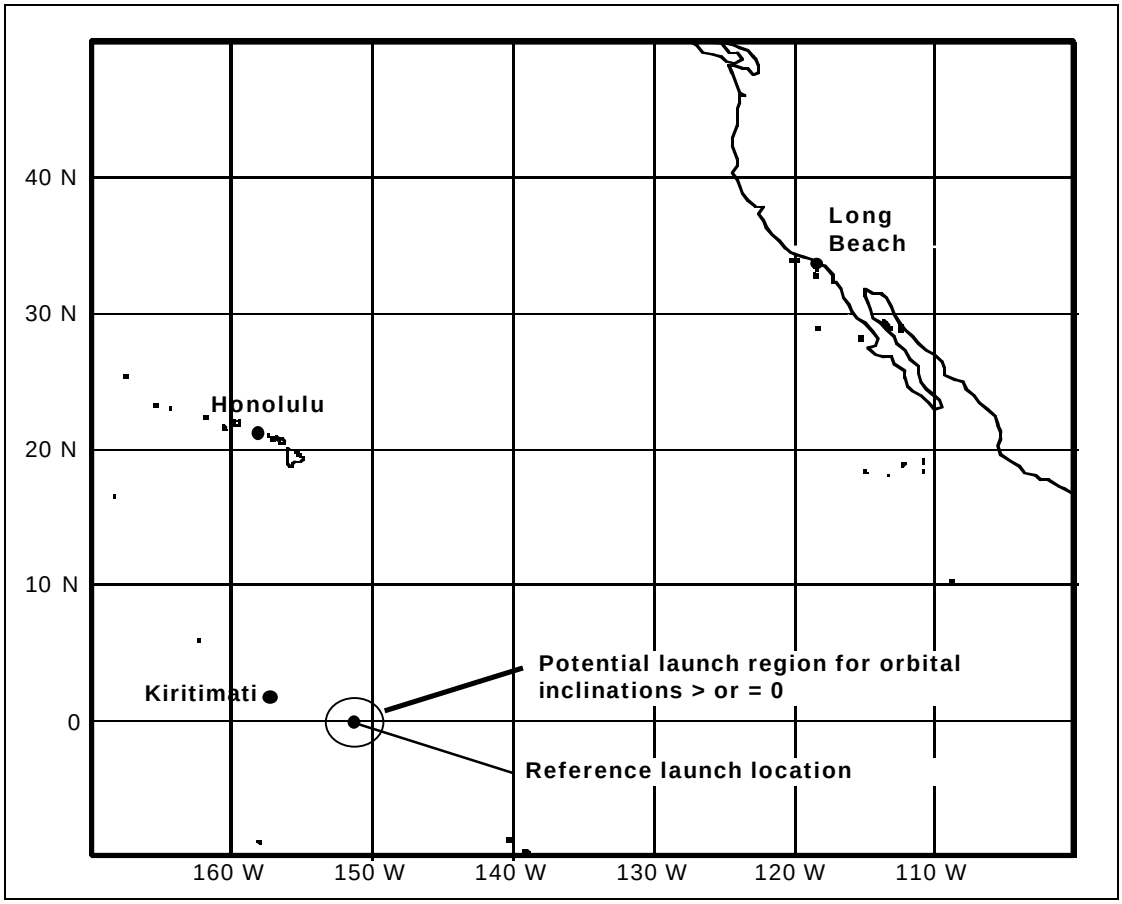

Figure A.5.7-1. Potential Launch Region

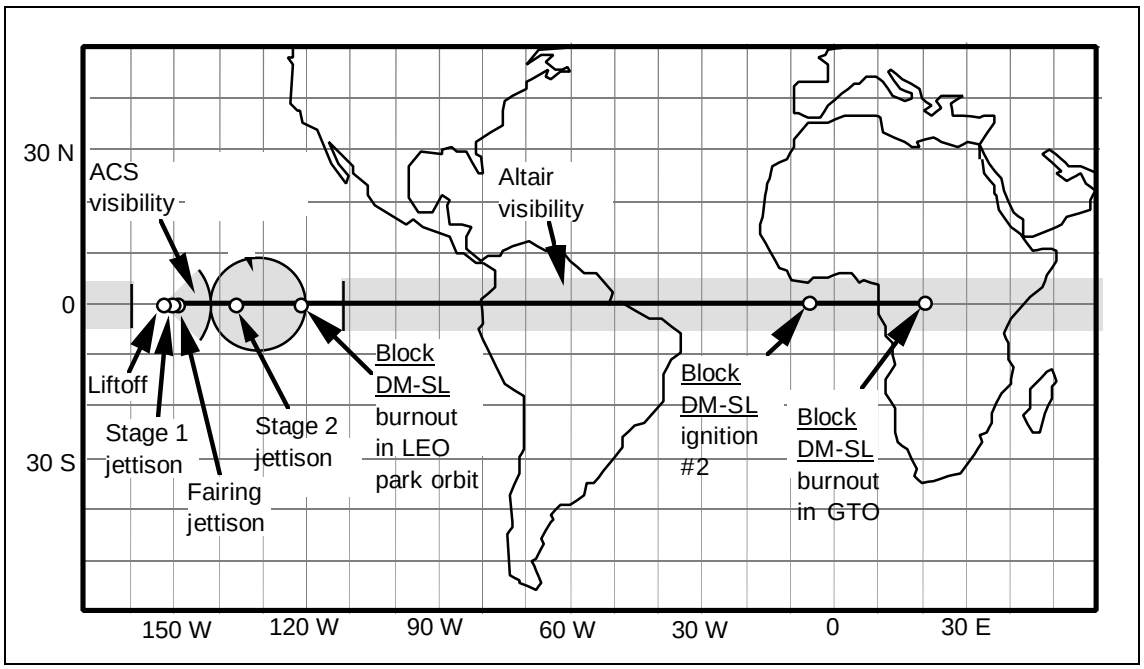

Figure A.5.8-1. Typical Flight Profile - GTO Mission

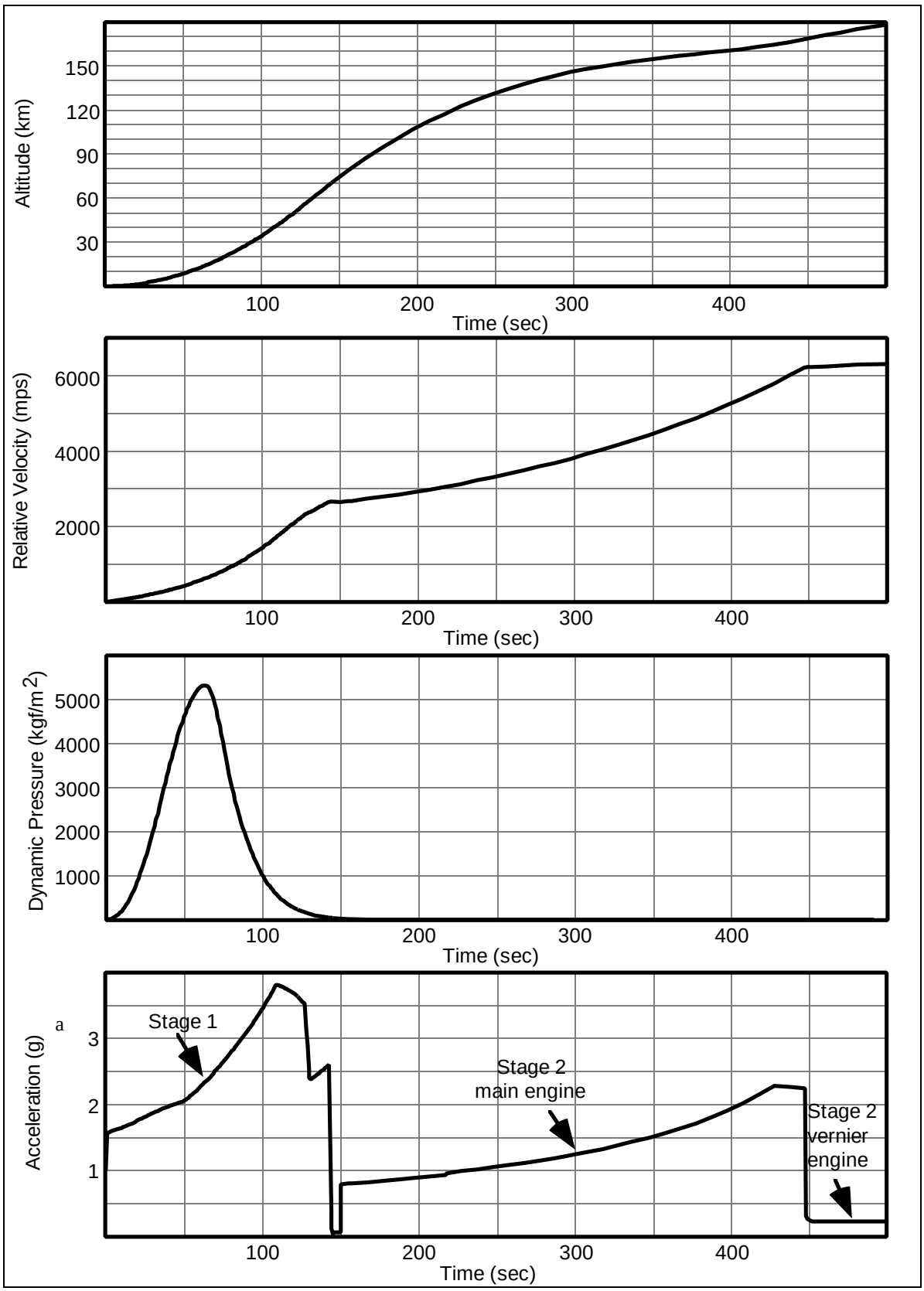

Figure A.5.8-2. Typical GTO Trajectory Parameters - Stage 1 and Stage 2

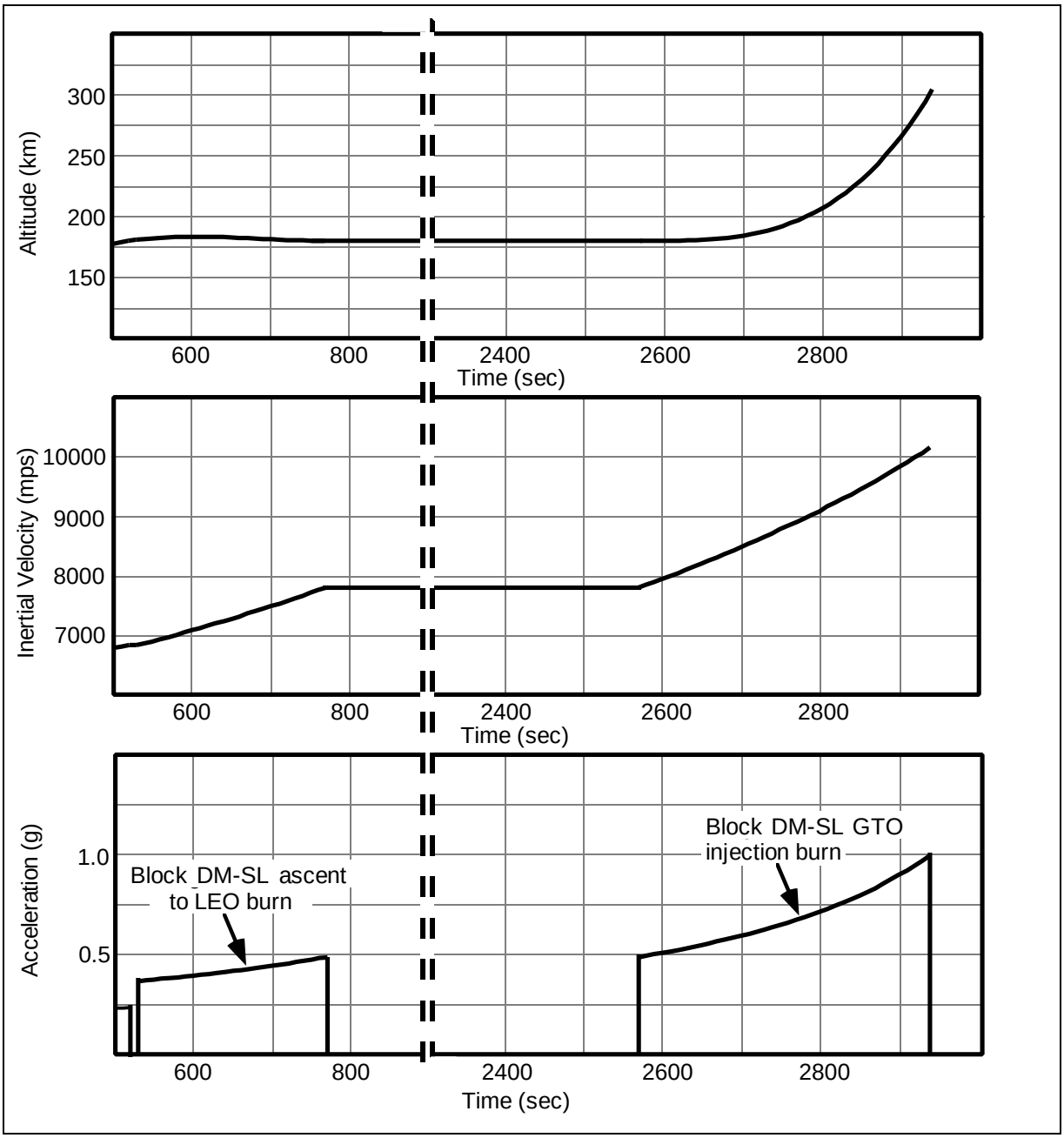

Figure A.5.8-3. Typical GTO Trajectory Parameters - Block DM-SL